



Photo C-1: Avian Point 1. Thicket habitat north of Lake Road; facing northerly



Photo C-2: Avian Point 2. Flat-topped stone wall separating mature mixed hardwood forest from thicket (former field); facing southerly



Photo C-3: Avian Point 3; facing northwesterly



Photo C-4: Avian Point 4; facing northerly



Photo C-5: Avian Point 5. Lowland hemlock forest west of Wetland Unit A3; facing westerly



Photo C-6: Avian Point 6; edge of young, moist, pole-sized forest, upgradient of Wetland Unit A-2; facing northerly



Photo C-7: Avian Point 7. Immature moist woods just southeast of pond (Wetland Unit A1); facing northerly



Photo C-8: Avian Point 8; Eastern ridge; facing southerly



Photo C-9: Avian Point 9; facing westerly



Photo C-10: Avian Point 10; facing southerly



Photo C-11: Avian Point 11; facing southerly



Photo C-12: Avian Point 12; facing southerly



Photo C-13: Avian Point 13; facing southwesterly



Photo C-14: Avian Point 14; facing northeasterly



Photo C-13: Scarlet tanager; from eastern forested ridge



Photo C-14: Eastern Wood Pewee; eastern forested ridge



Photo C-17: Ovenbird; central section of site



Photo C-14: Black and White warbler; Eversource ROW adjacent to site.



Photo C-13: Louisiana waterthrush fledgling from Wetland Unit A3



Photo C-14: Wood thrush fledgling; eastern forested ridge



Photo C-21: Catbird; near Wetland Unit A1

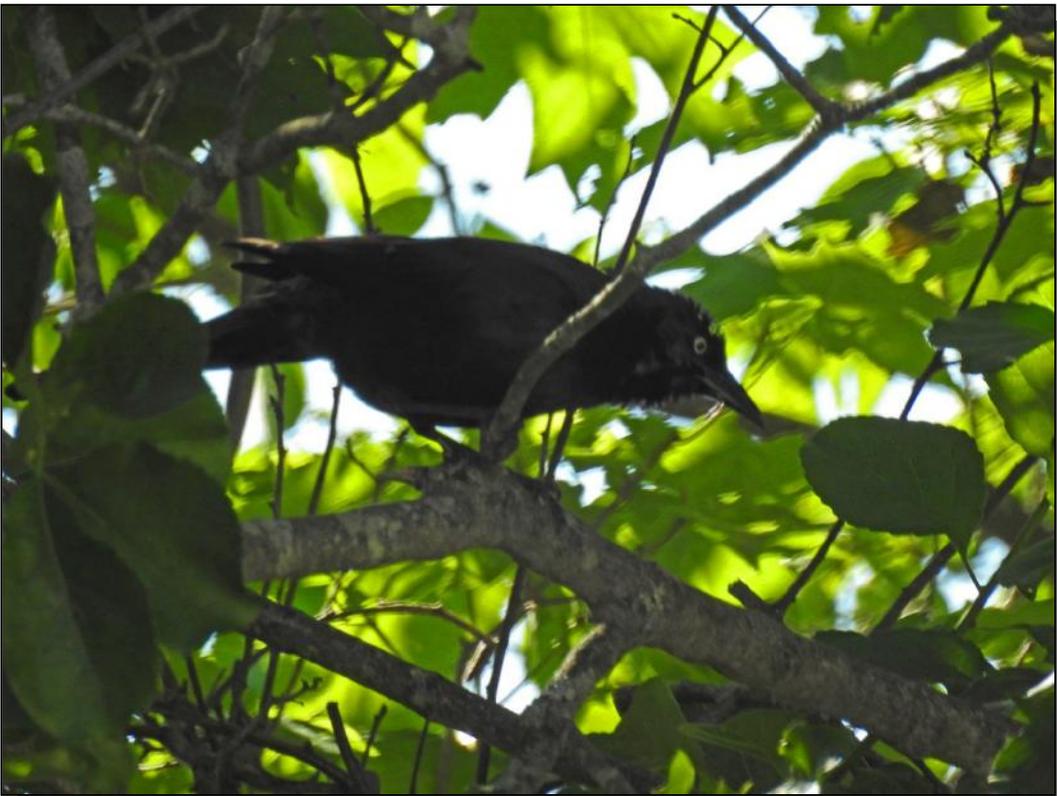


Photo C-22: Grackle; near existing house



Photo C-23: Indigo bunting



Photo C-24: Pine warbler



Photo C-25: Yellow warbler; Switchyard Site



Photo C-26: Towhee; Switchyard Site



Photo C-27: Song sparrow; Switchyard Site



Photo C-28: Brown-headed cowbird; near existing residence



Photo C-29: Kingbird; Switchyard Site



Photo C-30: Mourning doves; near existing residence



Photo C-30: Prairie warbler; just off-site to east of Switchyard Site



Photo D-1: Quinebaug River, facing upriver; March 24, 2016.



Photo D-2: Quinebaug River, facing downriver; March 24, 2016. Note outlet seasonal stream of Wetland Unit B entering river.



Photo D-3: Quinnebaug River; July 21, 2016. Undercut banks include suitable habitat for wood turtle hibernation.



Photo D-4: Quinnebaug River, very steep banks with a negligible herb layer are expected to impede terrestrial movements of wood turtle, and to prevent them from foraging for lush herbs on the subject site, e.g. in Wetland Unit A3.



Photo D-5: Quinebaug River, facing upriver; July 21, 2016. Habitat is suitable for wood turtle, including basking sites on rocks within the river. Emergent habitat is suitable for pickerel frog.



Photo D-6: Quinebaug River, upstream view; west of KEC Site, July 21, 2016.



Photo D-7: Pickerel frog (*Lithobates palustris*) on shore of Quinebaug River; July 21, 2016; also seen on-site; e.g. Wetland Unit A-3

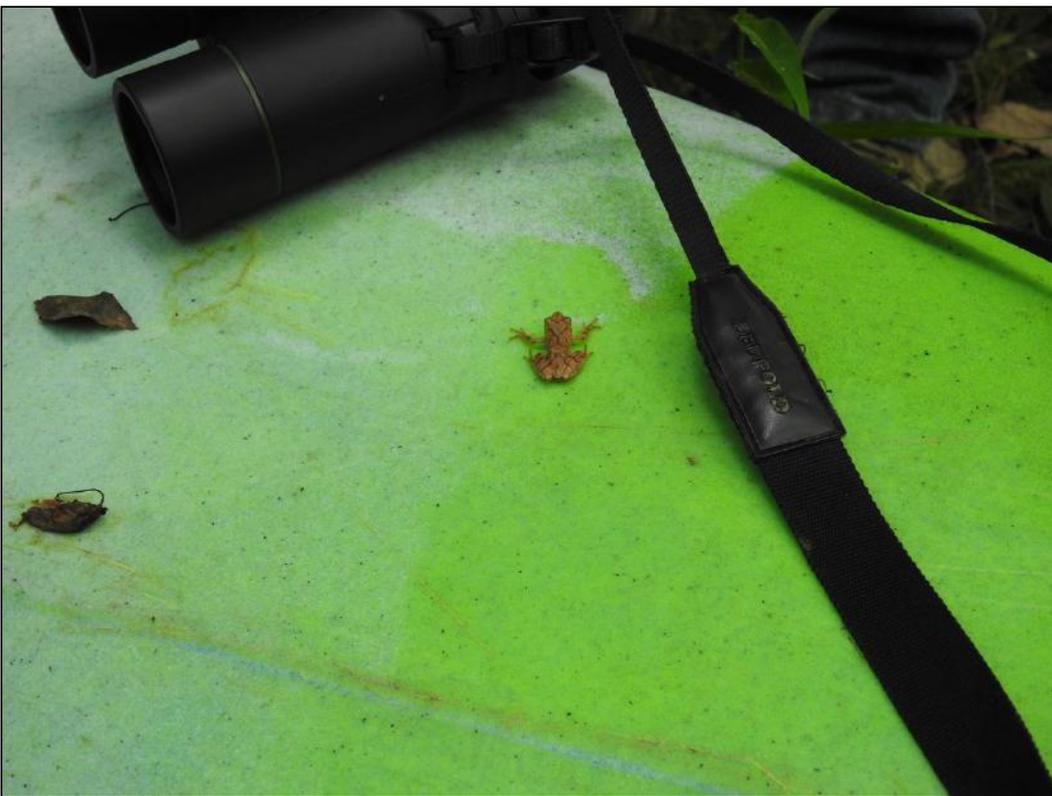


Photo D-8: Spring peeper (*Pseudacris c. crucifer*) on hull of kayak at pond (Wetland Unit A1); June 10, 2016.



Photo D-7: Northern two-lined salamander (*Eurycea bislineata*) in upper portion of Wetland A2; June 10, 2016.



Photo D-8: Northern brown snake (*Storeria d. dekayi*) observed near old barn at Switchyard Site



Photo D-11: Milk snake; northern field of Switchyard Site



Photo E -1: Northern crescent (*Phycioides selenes*)



Photo E-2: Common buck-eye (*Junonia coenia*)



Photo E-3: Common ringlet (*Coenonympha tullia*)



Photo E-4: Common spring moth (*Heliomata cyccladata*)



Photo E-5: Immature male common whitetail (*Libellula lydia*)



Photo E-6: Calico Pennant (*Celithemis elisa*)



Photo E-7: Limnephilid and odontocerid caddisflies (Trichoptera)



Photo E-8: Mayfly (Ephemeroptera); from Wetland Unit A-3 spring



Photo E-9: Oligoneurid mayfly (Ephemeroptera)



Photo E-10: White faced meadow hawk (*Sympetrum obtrusum*) on barberpole sedge at pond (Wetland Unit A-1).



Photo E-11: Ebony jewelwing (*Calopteryx maculata*); from Wetland Unit A3, seasonal stream



Photo E-12: Eastern pond hawk (*Erythemis simplicollis*); man-made pond



Photo E-13: White-footed moth (*Peromyscus leucopus*)



Photo E-14: Coyote skeleton

ATTACHMENT C: Vegetative Inventory

Inventory of Vascular Plant Species Observed at the KCE Site, Lake Road, Killingly, CT
Observations April- July, 2016

Vascular Plant Inventory				WETLANDS			UPLANDS		
SCIENTIFIC NAME	COMMON NAME	Invasive Status	FWS Indicator	Cover Class & Cover Estimate					
				Forested Wetland	Scrub-shrub	Emergent/ Meadow	Upland Grassland	Shrub/ sapling thicket	Upland Forest

TREES

<i>Acer rubrum</i>	Red maple		FAC	■	■				
<i>Acer saccharum</i>	Sugar maple		FACU						
<i>Amelanchier spp.</i>	Shadbush								
<i>Benthamidia alternifolia</i>	Pagoda tree		FACU						
<i>Benthamidia florida</i>	Flowering dogwood		FACU						
<i>Betula alleghaniensis</i>	Yellow birch		FACU	■					
<i>Betula lenta</i>	Black birch		FACU						
<i>Betula populifolia</i>	Gray birch		FAC						
<i>Carpinus caroliniana</i>	Ironwood		FAC						
<i>Carya glabra</i>	Pignut hickory		FACU						
<i>Carya ovata</i>	Shagbark hickory		FACU						
<i>Hamamelis virginiana</i>	Witch hazel		FAC	■					
<i>Fagus grandifolia</i>	American beech		FACU						
<i>Fraxinus alba</i>	White ash		FACU						
<i>Fraxinus pensylvanica</i>	Green ash		FACU	■					
<i>Juniperus virginiana</i>	Red cedar		FACU	■					
<i>Populus deltoides</i>	Cottonwood		FAC	■					
<i>Populus grandidentata</i>	Big tooth aspen		FACU						
<i>Ostrya virginiana</i>	Hop hornbeam		FAC						
<i>Pinus strobus</i>	White pine		FACU						
<i>Prunus serotina</i>	Black cherry		FACU						
<i>Quercus alba</i>	White oak		FACU						
<i>Quercus coccinea</i>	Scarlet oak		FACU						
<i>Quercus palustris</i>	Pin oak		FACW	■					
<i>Quercus rubra</i>	Northern red oak		FACU						
<i>Quercus velutina</i>	Black oak		FACU						
<i>Robinia pseudo-acacia</i>	Black locust	I	FACU						
<i>Tsuga canadensis</i>	Northern hemlock		FACU	■					
<i>Ulmus rubra</i>	Slippery elm		FAC	■					

SHRUBS

<i>Berberis thunbergii</i>	Japanese barberry	I	FACU						
<i>Clethra alnifolia</i>	Sweet pepperbush		FAC						
<i>Comptonia peregrina</i>	Sweet fern		NI						
<i>Corylus americana</i>	American hazelnut		FACU						
<i>Euonymus alata</i>	Winged euonymus	I	NI						
<i>Frangula alnus</i>	glossy buckthorn	I	FAC	■	■				
<i>Gaylussaccia baccata</i>	Black huckleberry		FACU						
<i>Ilex verticillata</i>	Winterberry		FACW+	■	■				
<i>Juniper communis</i>	Pasture juniper		FACU						
<i>Kalmia latifolia</i>	Mountain laurel		FACU						
<i>Lonicera morrowii</i>	Morrow's honeysuckle	I	NI		■				
<i>Lyonia ligustrina</i>	maleberry		FACW		■				
<i>Rhododendron periclymenoides</i>	Pink azalea		FAC						

Table 2, continued. Vascular Plant Inventory

WETLANDS

UPLANDS

Cover Class & Cover Estimate

SCIENTIFIC NAME	COMMON NAME	Invasive Status	FWS Indicator	WETLANDS			UPLANDS		
				Forested Wetland	Scrub-shrub	Emergent/ Meadow	Upland Grassland	Shrub/ sapling thick	Upland Forest

SHRUBS, CONT.

<i>Rosa multiflora</i>	Multiflora rose		FACU						
<i>Rubus allegheniensis</i>	Allegheny blackberry		FACU						
<i>Rubus idaeus</i>	Red rasperry		FACU						
<i>Rubus occidentalis</i>	Black raspberry		NI						
<i>Salix discolor</i>	Pussy willow		FACW						
<i>Sambucus americana</i>	Common elderberry		FACW						
<i>Spirea latifolia</i>	Meadowsweet		FACW						
<i>Spirea tomentosa</i>	Steeplebush		FACW						
<i>Swida amomum</i>	Silky dogwood		FACW						
<i>Swida racemosum</i>	Gray dogwood		FAC						
<i>Vaccinium angustifolium</i>	Late lowbush blueberry		FACU						
<i>Vaccinium corymbosum</i>	Highbush blueberry		FACW						
<i>Vaccinium pallidum</i>	Lowbush blueberry		NI						
<i>Viburnum acerifolium</i>	Maple-leaved viburnum		UPL						
<i>Viburnum dentatum</i>	Arrowood		FAC						
<i>Viburnum lentago</i>	Nannyberry		FAC						

HERBS

<i>Achillea millefolium</i>	Yarrow		FACU						
<i>Agrostis spp.</i>	Bentgrasses								
<i>Alliaria petiolata</i>	Garlic mustard	I	FACU						
<i>Anemone quinquefolia</i>	Wood anemone		FACU						
<i>Antennaria plantaginifolia</i>	Plantain-leaved pussytoes		NI						
<i>Anthoxanthu odoratum</i>	Sweetvernal grass		FACU						
<i>Arisaema triphyllum</i>	Jack-in-the-pulpit		FAC						
<i>Asclepias syriaca</i>	Common milkweed		UPL						
<i>Athyrium felix-femina</i>	Lady fern		FAC						
<i>Bidens frondosa</i>	Beggar-ticks		FACW						
<i>Boehmeria cylindrica</i>	False nettle		FACW						
<i>Cardamine impatiens</i>	Narrow-leaved cress	I	FAC						
<i>Cardamine pennsylvanica</i>	Bitter cress		OBL						
<i>Carex intumescens</i>	Bladder sedge		FACW						
<i>Carex folliculata</i>	Follicled sedge		OBL						
<i>Carex plantaginea</i>	Sedge, glaucous, Laxiflorae		NI						
<i>Carex sf radiata</i>	Rose-like sedge		FAC						
<i>Carex cf prasina</i>	Sedge		OBL						
<i>Carex scoparia</i>	Broom sedge		FACW						
<i>Carex stricta</i>	Tussock sedge		OBL						
<i>Carex swannii</i>	Swann's sedge		FACU						
<i>Chimaphila maculata</i>	Spotted wintergreen		NI						
<i>Chelone glabra</i>	Turtlehead		OBL						
<i>Chrysosplenium americanum</i>	Golden saxifrage		OBL						
<i>Dactylis glomerata</i>	Orchard grass		FACU						
<i>Dendrolycopodium obscurum</i>	Princess pine		FACU						
<i>Dennstaedtia punctilobula</i>	Hayscented fern		UPL						
<i>Dichanthelium dichotomum</i>	Panic grass		FAC						
<i>Dicanthelium spp.</i>	Panic grass		FAC						
<i>Diphasiastrum digitatum</i>	Ground cedar		FACU						

Table 2, continued. Vascular Plant Inventory

WETLANDS

UPLANDS

Cover Class & Cover Estimate

SCIENTIFIC NAME	COMMON NAME	Invasive Status	FWS Indicator	WETLANDS			UPLANDS	
				Forested Wetland	Scrub-shrub	Emergent/ Meadow	Upland Grassland	Shrub/ sapling thicket

HERBS, CONT.

<i>Dryopteris intermedia</i>	Evergreen woodfern		FAC							
<i>Dryopteris marginalis</i>	Marginal wood fern		FACU							
<i>Dryopteris spinulosa</i>	Spinulose woodfern		FACW							
<i>Eleocharis obtusa</i>	Blunt spikerush		OBL							
<i>Epilobium coloratum</i>	Purple-leaved willow-herb		OBL							
<i>Eupatorium maculatum</i>	Spotted joe-pye-weed		FACW							
<i>Eupatorium perfoliatum</i>	Boneset		FACW+							
<i>Eurybia divaricata</i>	White wood aster		NI							
<i>Fallopia japonica</i>	Japanese knotweed	I	FACU							
<i>Festuca rubra</i>	Red fescue		FACU							
<i>Festuca spp.</i>	Fescues									
<i>Galium asprellum</i>	Bristly bedstraw		OBL							
<i>Galium mollugo</i>	Madder		NI							
<i>Galium palustre</i>	Marsh bedstraw		OBL							
<i>Galium trifidum</i>	Fragrant bedstraw		FACW							
<i>Gaultheria procumbens</i>	Wintergreen		FACU							
<i>Geum canadense</i>	White avens		FAC							
<i>Glyceria melicaria</i>	Northeastern mannagrass		OBL							
<i>Glyceria striata</i>	fowl mannagrass		OBL							
<i>Hieraceum spp</i>	Hawkweeds									
<i>Hypericum perforatum</i>	Common St John'swort		UPL							
<i>Impatiens capensis</i>	Jewelweed		FACW							
<i>Juncus effusus</i>	Soft rush		FACW							
<i>Leersia oryzoides</i>	Rice cut-grass		OBL							
<i>Lemna spp.</i>	Duckweeds		OBL							
<i>Leonurus cardica</i>	Motherwort		NI							
<i>Leptochloa fusca fascicularis</i>	Sprangletop grass		NI							
<i>Lycopodium clavatum</i>	Staghorn clubmoss		FAC							
<i>Lycopus uniflorus</i>	Northern bugle		OBL							
<i>Lycopus virginicus</i>	Virginia water horehound		OBL							
<i>Lysimachia quadrifolia</i>	Whorled loosestrife		FACW+							
<i>Maianthemum canadense</i>	Canada mayflower		FACU							
<i>Maianthemum racemosum</i>	False solomon's seal		FACU							
<i>Mediola virginiana</i>	Cucumber root		FACU							
<i>Mimulus ringens</i>	Monkeyflower		OBL							
<i>Mitchella repens</i>	Partidgeberry		FACU							
<i>Nuphar variegata</i>	Yellow pond lily		OBL							
<i>Onoclea sensibilis</i>	Sensitive fern		FACW							
<i>Osmunda cinnamomea</i>	Cinnamon fern		FACW							
<i>Osmunda regalis</i>	Royal fern		OBL							
<i>Panax trifolius</i>	Dwarf ginseng		NI							
<i>Panicum clandestinum</i>	Deer tongue grass		FACW							
<i>Parathelypteris noveboracensis</i>	New York fern		FACW							
<i>Persicaria spp.</i>	Smartweeds									
<i>Pheum canadense</i>	Timothy		NI							
<i>Pilea pumila</i>	Clearweed		FACW							
<i>Platanthera clavellata</i>	Green wood orchis		FACW							
<i>Polygonatum biflorum</i>	King solomon's seal		FACU							

Table 2, continued. Vascular Plant Inventory

WETLANDS

UPLANDS

Cover Class & Cover Estimate

SCIENTIFIC NAME	COMMON NAME	Invasive Status	FWS Indicator	WETLANDS			UPLANDS		
				Forested Wetland	Scrub-shrub	Emergent/ Meadow	Upland Grassland	Shrub/ sapling thick	Upland Forest

HERBS, CONT.

<i>Polypodium virginianum</i>	Rock polypody		NI						
<i>Potentilla canadensis</i>	Canada cinquefoil		NI						
<i>Potentilla simplex</i>	Common cintquefoil		FACU						
<i>Ranunculus recurvatus</i>	Hooked buttercup		FACW						
<i>Rudbeckia hirta</i>	Black-eyed Susan		FACU						
<i>Schyzachyrium scoparium</i>	Little blue stem grass		FACU						
<i>Solidago altissima</i>	Tall goldenrod		FACU-						
<i>Solidago rugosa</i>	Rough-stem goldenrod		FAC						
<i>Scirpus microcarpus</i>	Barber pole sedge		OBL						
<i>Sphagnum spp.</i>	Sphagnum moss								
<i>Symphiotrichum spp.</i>	Aster species.								
<i>Symplocarpus foetidus</i>	Skunk-cabbage		OBL						
<i>Trientalis borealis</i>	American starflower		FAC						
<i>Trifolium spp.</i>	Clovers								
<i>Trifolium pratense</i>	Red clover		FACU-						
<i>Trillium erectum</i>	Red trillium		FACU-						
<i>Uvularia sessilifolia</i>	Sessile-leaf bellwort		FACU-						
<i>Veratrum viride</i>	False hellebore		FACW						
<i>Verbena urticifolia</i>	White verbena		FAC						
<i>Veronica officinalis</i>	Common speedwell		FACU						
<i>Vicia cracca</i>	Cow vetch		NI						
<i>Viola blanda</i>	Sweet white violet		FACW						
<i>Viola cucullata</i>	Marsh blue violet		FACW						
<i>Viola odorata</i>	English violet		NI						
<i>Viola pallens</i>	Smooth white violet		OBL						

VINES

<i>Calystegia sepia</i>	Field bindweed		FAC						
<i>Celastrus orbiculatus</i>	Asiatic bittersweet		UPL						
<i>Clematis virginiana</i>	Virgin's bower		FAC						
<i>Lonicera japonica</i>	Japanese honeysuckle	I	FACU						
<i>Rubus hispidus</i>	Bristly dewberry		FACW						
<i>Rubus flagellaris</i>	Prickly dewberry		FACU						
<i>Smilax rotundifolia</i>	Common greenbrier		FAC						
<i>Toxicodendron radicans</i>	Poison ivy		FAC						

NOTES:

I = PRIORITY INVASIVE IN CT

WETLAND INDICATOR STATUS

almost always found in wetlands
 most likely to be found in wetlands
 most likely to be found in uplands
 equally likely, wetlands & uplands
 Occurs only in wetlands
 Has no indicator status

OBL
 FACW
 FACU
 FAC
 UPL
 NI (most are upland species)

COVER CODES

25-100%		HIGH
5-25%		MODERATE
1-5%		LOW
<1%		SPARSE

NOTE: Cover class shown in table is that of the cover type variant where species is best represented. For example, cover class of rock polypody (*Polypodium virginianum*) is "1-5%", which is its cover in rocky evergreen-deciduous forest. However, if cover were averaged over all forest cover types on the site, it would be under 1%. Survey was of low to medium intensity.

ATTACHMENT D: Breeding Bird Survey

Avian Diversity and Abundance at the KEC Site

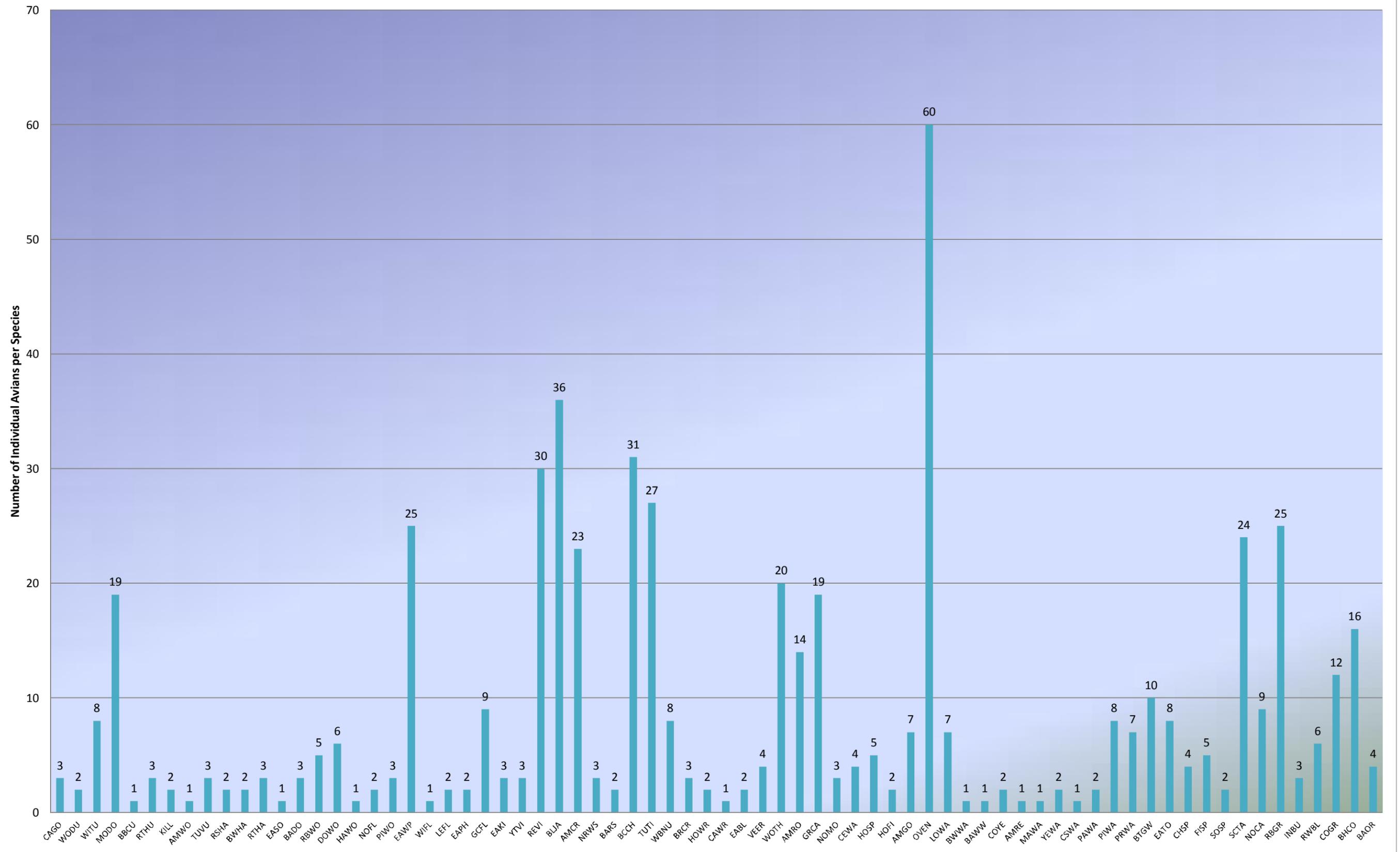


TABLE A: June 2016 Breeding Bird Survey using the Modified Ontario Point Census Method (CT DEEP) at the Killingly Energy Center Site, Lake Road, Killingly, CT

Species	Bird ID	Date	Point 1		Point 2		Point 3		Point 4		Point 5		Point 6		Point 7		Point 8		Point 9		Point 10		Point 11		Point 12		Point 13		Point 14		Other *	Total		
			06/04/16	06/10/16	06/04/16	06/10/16	06/04/16	06/19/16	06/04/16	06/19/16	06/04/16	06/19/16	06/04/16	06/10/16	06/04/16	06/10/16	06/04/16	06/10/16	06/04/16	06/10/16	06/04/16	06/19/16	06/10/16	06/19/16	06/04/16	06/19/16	06/10/16	06/19/16	06/04/16	06/19/16				
			Canada goose (<i>Branta canadensis</i>)	CAGO																														
Wood duck (<i>Aix sponsa</i>)	WODU																															2	2	
Wild Turkey (<i>Meleagris gallopavo</i>)	WITU																															8	8	
Mourning Dove (<i>Zenaida macroura</i>)	MODO					1					1				1		1	2	1	1	1					1	1	3		2	3	19		
Black-billed Cuckoo (<i>Coccyzus erythrophthalmus</i>)	BBCU																															1	1	
Ruby-throated Hummingbird (<i>Archilochus colubris</i>)	RTHU																															3	3	
Killdeer (<i>Charadrius vociferus</i>)	KILL																															2	2	
American Woodcock (<i>Scolopax minor</i>)	AMWO																															1	1	
Turkey vulture (<i>Cathartes aura</i>)	TUVU																													1		2	3	
Red-shouldered Hawk (<i>Buteo lineatus</i>)	RSHA																															2	2	
Broad-winged Hawk (<i>Buteo platyterus</i>) (SC) ¹	BWHA																															2	2	
Red-tailed Hawk (<i>Buteo jamaicensis</i>)	RTHA																															3	3	
Eastern Screech-Owl (<i>Megascops asio</i>)	EASO																															1	1	
Barred Owl (<i>Strix varia</i>)	BADO																															3	3	
Red-bellied Woodpecker (<i>Melanerpes carolinus</i>)	RBWO			1	1									1	1																	1	5	
Downy Woodpecker (<i>Picoides pubescens</i>)	DOWO										1	1								1						1						2	6	
Hairy Woodpecker (<i>Picoides villosus</i>)	HAWO																															1	1	
Northern Flicker (<i>Colaptes auratus</i>)	NOFL																																2	2
Pileated Woodpecker (<i>Dryocopus pileatus</i>)	PIWO					1																										2	3	
Eastern Wood-Pewee (<i>Contopus virens</i>)	EAWP		1	1	1	3	2	1	2	2			3		2	1	3								1							2	25	
Willow Flycatcher (<i>Empidonax traillii</i>)	WIFL																															1	1	
Least Flycatcher (<i>Empidonax minimus</i>)	LEFL																															2	2	
Eastern Phoebe (<i>Sayornis phoebe</i>)	EAPH		1																													1	2	
Great Crested Flycatcher (<i>Myiarchus crinitus</i>)	GCFL	1																		1		1			1	1		1	1			2	9	
Eastern Kingbird (<i>Tyrannus tyrannus</i>)	EAKI																														1	2	3	
Yellow-throated Vireo (<i>Vireo flavifrons</i>)	YTVI																											1	1			1	3	
Red-eyed Vireo (<i>Vireo olivaceus</i>)	REVI	3	1	1		2		2	1		3	3		2	2	1	1		1	1	2	1		1							2	30		
Blue Jay (<i>Cyanocitta cristata</i>)	BLJA		3		1	2	2	1		1	1		4				2	1		1		1		1	1	2	4	1	2		5	36		
American Crow (<i>Corvus brachyrhynchos</i>)	AMCR	1	1	1	1		1		1	1		4		3	1	1	1								1					1		4	23	
N. Rough-winged Swallow (<i>Stelgidopteryx serripennis</i>)	NRWS																																3	3
Barn Swallow (<i>Hirundo rustica</i>)	BARS																																2	2
Black-capped Chickadee (<i>Poecile atricapillus</i>)	BCCH		1	2		1		3		3	2	3	1	1	2		1						1		3		2				5	31		
Tufted Titmouse (<i>Baeolophus bicolor</i>)	TUTI	1	2	1	1		1	3		3	2	1				1								1		2						8	27	
White-breasted Nuthatch (<i>Sitta carolinensis</i>)	WBNU																			1		3	1					1				2	8	
Brown Creeper (<i>Certhia americana</i>)	BRCR											1																					2	3
House Wren (<i>Troglodytes aedon</i>)	HOWR																																2	2
Carolina Wren (<i>Thryothorus ludovicianus</i>)	CAWR																																1	1
Eastern Bluebird (<i>Sialia sialis</i>)	EABL																																2	2
Veery (<i>Catharus fuscescens</i>)	VEER											2															1					1	4	
Wood Thrush (<i>Hylocichla mustelina</i>)	WOTH	1				2		2	1	1					3	1	2			1	1	1			1							3	20	
American Robin (<i>Turdus migratorius</i>)	AMRO	3	4	2																										1		4	14	
Gray Catbird (<i>Dumetella carolinensis</i>)	GRCA		2	1											1												3	2	1	3		6	19	
Northern Mockingbird (<i>Mimus polyglottos</i>)	NOMO																										1		1			1	3	
Cedar Waxwing (<i>Bombycilla cedrorum</i>)	CEWA					1		2																									1	4
House Sparrow (<i>Passer domesticus</i>)	HOSP																																5	5

TABLE A: June 2016 Breeding Bird Survey using the Modified Ontario Point Census Method (CT DEEP) at the Killingly Energy Center Site, Lake Road, Killingly, CT (continued)

Species	Bird ID	Date	Point 1		Point 2		Point 3		Point 4		Point 5		Point 6		Point 7		Point 8		Point 9		Point 10		Point 11		Point 12		Point 13		Point 14		Other *	Total
			06/04/16	06/10/16	06/04/16	06/10/16	06/04/16	06/19/16	06/04/16	06/19/16	06/04/16	06/19/16	06/04/16	06/10/16	06/04/16	06/10/16	06/04/16	06/10/16	06/04/16	06/10/16	06/10/16	06/19/16	06/10/16	06/19/16	06/10/16	06/19/16	06/10/16	06/19/16	06/10/16	06/19/16		
House Finch (<i>Haemorhous mexicanus</i>)	HOFI																													2	2	
American Goldfinch (<i>Spinus tristis</i>)	AMGO																													7	7	
Ovenbird (<i>Seiurus aurocapilla</i>)	OVEN		2	2	2	1	2	2	4	2	3	4	4	4	1	4	1	3	2	1	2	2	1	2	3	2		1		3	60	
Louisiana Waterthrush (<i>Parkesia motacilla</i>)	LOWA											2							1	1		2								1	7	
Blue-winged Warbler (<i>Vermivora cyanoptera</i>)	BWWA																													1	1	
Black-and-white Warbler (<i>Mniotilta varia</i>)	BAWW																													1	1	
Common Yellowthroat (<i>Geothlypis trichas</i>)	COYE																											1		1	2	
American redstart (<i>Setophaga ruticilla</i>)	AMRE																													1	1	
Magnolia warbler (<i>Setophaga magnolia</i>)	MAWA																													1	1	
Yellow Warbler (<i>Setophaga petechia</i>)	YEWA																													2	2	
Chestnut-sided Warbler (<i>Setophaga pensylvanica</i>)	CSWA																													1	1	
Palm Warbler (<i>Setophaga palmarum</i>)	PAWA																													2	2	
Pine Warbler (<i>Setophaga pinus</i>)	PIWA					1		1	1							1		1												3	8	
Prairie Warbler (<i>Setophaga discolor</i>)	PRWA																									2	1	2	2	2	7	
Black-throated Green Warbler (<i>Setophaga virens</i>)	BTGW											1										3	2	1	1					2	10	
Eastern Towhee (<i>Pipilo erythrophthalmus</i>)	EATO				1		1																		1	1	1	1	2	8		
Chipping Sparrow (<i>Spizella passerina</i>)	CHSP																		1		1	1								1	4	
Field Sparrow (<i>Spizella pusilla</i>)	FISP																										1	3	1	5		
Song Sparrow (<i>Melospiza melodia</i>)	SOSP																													2	2	
Scarlet Tanager (<i>Piranga olivacea</i>)	SCTA		1				1		2	1	2	1	2	1	2	1	1	1	1	1	1	1			1					1	24	
Northern Cardinal (<i>Cardinalis cardinalis</i>)	NOCA		1		1		1							1	1														2	2	9	
Rose-breasted Grosbeak (<i>Pheucticus ludovicianus</i>)	RBGR		2	1	2	1			1	1		2	2	2	2	2	2		1					1					1	2	25	
Indigo Bunting (<i>Passerina cyanea</i>)	INBU																								1			1	1	1	3	
Red-winged Blackbird (<i>Agelaius phoeniceus</i>)	RWBL																									2	2	2	2	6		
Common Grackle (<i>Quiscalus quiscula</i>)	COGR																							1	2			3	6	12		
Brown-headed Cowbird (<i>Molothrus ater</i>)	BHCO		2	2			1	1		1										1	2						1		5	16		
Baltimore Oriole (<i>Icterus galbula</i>)	BAOR																									1	1		1	4		
GRAND TOTAL																												582				
TOTAL AVIAN SPECIES																												72				

Notes: Bird survey/census conducted by George Logan and Jonathan Trouern-Trend

Common and scientific names are in accordance with 57th AOU Supplement (2016) of the American Ornithological Union's Checklist of North & Middle American Birds (7th Edition)

* Species observed on site but not on point during survey; number indicates total individuals observed; likely includes observations of the same individuals on: June 4th, 10th, 12th, 13th, and 19th, 2016.

¹ Listed as Species of Special Concern (SC) in Connecticut's Endangered, Threatened, and Special Concern Species (CT DEEP 2015)

AVIAN INVENTORY
 POINT COUNT LOCATION MAPPING
 (10 Minute Count)

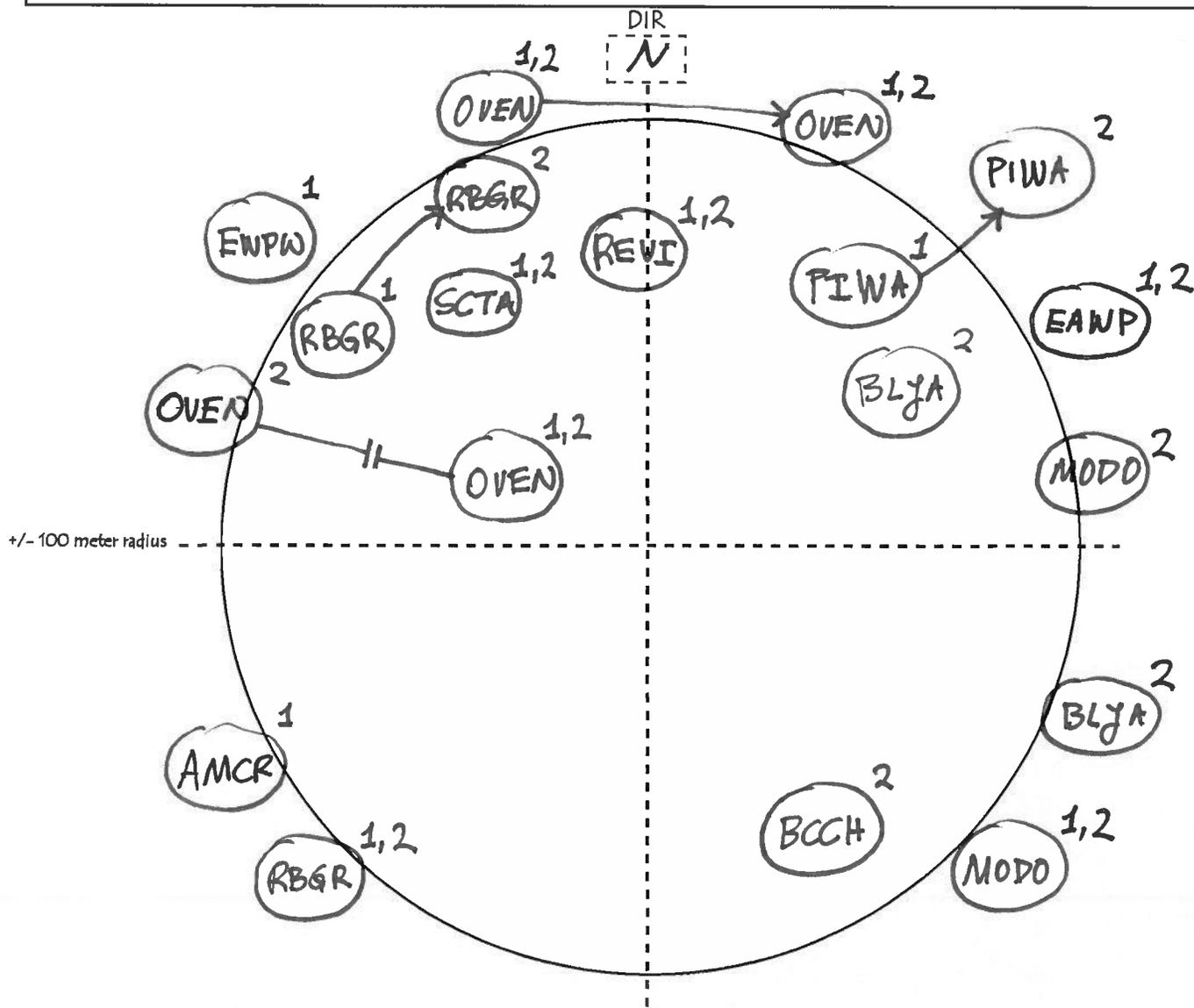
PROJECT NAME & LOCATION: Killingly Energy Center, Lake Road, Killingly, CT

STATION: *AP-8*

DATE: *6-10-16*

START TIME: *5:58 AM*

OBSERVER: *G. T. LOGAN*



- Singing position of male
- Simultaneous song of two males
- Known change in position

NOTES:

- Partly cloudy
- Road traffic audible - L-M

ATTACHMENT E: Wildlife Inventory

Attachment E - Table A-1

Breeding Birds Recorded or Expected at the Proposed Killingly Energy Center (KEC)

Town of Killingly, Windham County, Connecticut

Common Name¹	Scientific Name	Breeding Bird Record?²	Observed at Site?³	Listed?⁴	Location/Notes
Canada goose	<i>Podilymbus podiceps</i>	X	X		Flyover
Wood duck	<i>Aix sponsa</i>	X	X		At man-made pond; WA1
Mallard	<i>Anas platyrhynchos</i>	X			Probable user
Northern bobwhite	<i>Colinus virginianus</i>	X			Possible habitat in electric ROW
Ruffed grouse	<i>Bonasa umbellus</i>	X			Possible breeder
Wild turkey	<i>Meleagris gallopavo</i>	X	X		Female/fledglings; Switchyard Site
Rock pigeon	<i>Columba livia</i>	X			Possible user
Mourning dove	<i>Zenaida macroura</i>	X	X		Common
Black-billed cuckoo	<i>Coccyzus erythrophthalmus</i>	X	X		Switchyard Site (SS)
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	X			Possible breeder
Chimney Swift	<i>Chaetura pelagica</i>	X			Probable user
Ruby-throated hummingbird	<i>Archilochus colubris</i>	X	X		
Killdeer	<i>Charadrius vociferous</i>	X	X		SS
American woodcock	<i>Scolopax minor</i>	X	X		SS
Turkey vulture	<i>Cathartes aura</i>	X	X		Flyover
Cooper's hawk	<i>Accipiter cooperii</i>	X			Possible breeder
Red-shouldered hawk	<i>Buteo lineatus</i>	X	X		N. section of Generating Facility Site (GFS)
Broad-winged hawk	<i>Buteo platypterus</i>	X	X	SPEC	
Red-tailed hawk	<i>Buteo jamaicensis</i>	X	X		Both SS and GFS
Eastern screech owl	<i>Ottus asio</i>	X	X		SS

¹ Common and scientific names according to AOU (7th Edition) and supplements through 2016 (57th)

² Recorded in any of eight adjacent blocks of the Atlas of Breeding Birds of Connecticut (1994), centered on the block for the subject site, for which preferred habitat exists on-site or immediately adjacent. Date is supplemented by recent BBS data for a nearby route (i.e., Woodstock, CT). Author has included additional species for which sufficient habitat exists, which have been recorded elsewhere in Windham County, or species observed during migration.

³ Observed during the following field survey dates: May 4th, 20th, and 26th, and June 4th, 10th, 12th, 13th, and 19th, 2016

⁴ CT State-Listed: END = Endangered, THR = Threatened, SPEC = Special Concern

Attachment E - Table A-1 (cont.)

Common Name	Scientific Name	Breeding Bird Record?	Observed at Site?	Listed?	Location/Notes
Great horned owl	<i>Bubo virginianus</i>	X			Possible user
Barred owl	<i>Strix varia</i>	X	X		GFS
Red-bellied woodpecker	<i>Melanerpes carolinus</i>	X	X		
Downy woodpecker	<i>Picoides pubescens</i>	X	X		
Hairy woodpecker	<i>Picoides villosus</i>	X	X		
Northern flicker	<i>Colaptes auratus</i>	X	X		
Pileated woodpecker	<i>Dryocopus pileatus</i>	X	X		
American kestrel	<i>Falco sparverius</i>	X		SPEC	
Eastern wood-pewee	<i>Contopus virens</i>	X	X		Common in wooded areas
Willow flycatcher	<i>Empidonax traillii</i>	X	X		SS
Alder flycatcher	<i>Empidonax alnorum</i>	X			Possible breeder; likely off-site
Least flycatcher	<i>Empidonax minimus</i>	X	X		SS
Eastern phoebe	<i>Sayornis phoebe</i>	X	X		
Great crested flycatcher	<i>Myiarchus crinitus</i>	X	X		SS and GFS
Eastern kingbird	<i>Tyrannus tyrannus</i>	X	X		SS
White-eyed vireo	<i>Vireo griseus</i>	X			Possible breeder
Yellow-throated vireo	<i>Vireo flavifrons</i>	X	X		SS
Warbling vireo	<i>Vireo gilvus</i>	X			Possible breeder
Red-eyed vireo	<i>Vireo olivaceus</i>	X	X		Common
Blue jay	<i>Cyanocitta cristata</i>	X	X		Common
Common Raven	<i>Corvus corax</i>				Range is increasing; based on habitat
American crow	<i>Corvus brachyrhynchos</i>	X	X		Common
Tree swallow	<i>Tachycineta bicolor</i>	X			Probable user
N. rough-winged swallow	<i>Stelgidopteryx serripennis</i>	X	X		Flyover; SS
Bank swallow	<i>Riparia riparia</i>	X			Possible user
Barn swallow	<i>Hirundo rustica</i>	X	X		SS
Black-capped chickadee	<i>Poecile atricapillus</i>	X	X		common
Tufted titmouse	<i>Baeolophus bicolor</i>	X	X		common
Red-breasted nuthatch	<i>Sitta canadensis</i>	X			Probable breeder

Attachment E - Table A-1 (cont.)

Common Name	Scientific Name	Breeding Bird Atlas Record?	Observed at Site?	Listed?	Location/Notes
White-breasted nuthatch	<i>Sitta carolinensis</i>	X	X		GFS
Brown creeper	<i>Certhia americana</i>	X	X		GFS
House wren	<i>Troglodytes aedon</i>	X	X		Near existing house
Carolina wren	<i>Thryothorus ludovicianus</i>	X	X		Near existing house and barn
Blue-gray gnatcatcher	<i>Polioptila caerulea</i>	X			Probable breeder
Eastern bluebird	<i>Sialia sialis</i>	X	X		SS
Veery	<i>Catharus fuscescens</i>	X	X		
Hermit thrush	<i>Catharus guttatus</i>	X			Possible breeder
Wood thrush	<i>Hylocichla mustelina</i>	X	X		
American robin	<i>Turdus migratorius</i>	X	X		common
Gray catbird	<i>Dumetella carolinensis</i>	X	X		
Northern mockingbird	<i>Mimus polyglottos</i>	X	X		
European starling	<i>Sturnus vulgaris</i>	X			Probable breeder or user
Cedar waxwing	<i>Bombycilla cedrorum</i>	X	X		
House sparrow	<i>Passer domesticus</i>	X	X		At existing house bird feeder
House finch	<i>Carpodacus mexicanus</i>	X	X		
Purple finch	<i>Carpodacus purpureus</i>	X			Possible breeder
American goldfinch	<i>Carduelis tristis</i>	X	X		SS and nearby
Ovenbird	<i>Seiurus aurocapillus</i>	X	X		Most common bird in wooded areas
Louisiana waterthrush	<i>Parkesia motacilla</i>	X	X		
Northern waterthrush	<i>Parkesia noveboracensis</i>	X			Suitable habitat at GFS
Blue-winged warbler	<i>Vermivora cyanoptera</i>	X	X		SS
Black-and-white warbler	<i>Mniotilta varia</i>	X	X		
Common yellowthroat	<i>Geothlypis trichas</i>	X	X		SS
American redstart	<i>Setophaga ruticilla</i>	X	X		SS, wooded southern section
Magnolia warbler	<i>Dendroica magnolia</i>		X		Late migrant
Yellow warbler	<i>Dendroica petechial</i>	X	X		SS and nearby
Chestnut sided warbler	<i>Dendroica pensylvanica</i>	X	X		SS and nearby
Palm warbler	<i>Dendroica palmatorum</i>		X		Migrant

Attachment E - Table A-1 (cont.)

Common Name	Scientific Name	Breeding Bird Atlas Record?	Observed at Site?	Listed?	Location/Notes
Pine warbler	<i>Dendroica pinus</i>	X	X		
Yellow-rumped warbler	<i>Dendroica coronata</i>	X			Possible but unlikely breeder
Prairie warbler	<i>Dendroica discolor</i>	X	X		SS and ROW nearby
Black-throated green warbl.	<i>Dendroica virens</i>	X	X		GFS; northern section mostly
Canada warbler	<i>Wilsonia canadensis</i>	X			Possible breeder
Wilson's warbler	<i>Wilsonia pusilla</i>	X			Likely migrant
Eastern towhee	<i>Pipilo erythrophthalmus</i>	X	X		SS
Chipping sparrow	<i>Spizella passerine</i>	X	X		
Field sparrow	<i>Spizella pusilla</i>	X	X		Just off-site of SS in ROW
Song sparrow	<i>Melospiza melodia</i>	X	X		
Scarlet tanager	<i>Piranga olivacea</i>	X	X		GFS
Northern cardinal	<i>Cardinalis cardinalis</i>	X	X		
Rose-breasted grosbeak	<i>Pheucticus ludovicianus</i>	X	X		
Indigo bunting	<i>Passerina cyanea</i>	X	X		SS
Red-winged blackbird	<i>Agelaius phoeniceus</i>	X	X		SS and nearby
Common grackle	<i>Quiscalus quiscula</i>	X	X		
Brown-headed cowbird	<i>Molothrus ater</i>	X	X		
Baltimore oriole	<i>Icterus galbula</i>	X	X		

Attachment E - Table A-2

Amphibians Recorded or Expected at the Proposed Killingly Energy Center (KEC)

Town of Killingly, Windham County, Connecticut

Common Name⁵	Scientific Name	Nearby Record?⁶	Observed at Site?⁷	Listed?⁸	Location/Notes
Spotted salamander	<i>Ambystoma maculatum</i>	X	X		GFS; breeding at Wetland Unit B (WB)
Northern dusky salamander	<i>Desmognathus fuscus</i>	X			Possible
N. redback salamander	<i>Plethodon c. cinereus</i>	X	X		Throughout forest areas
Four-toed salamander	<i>Hemidactylium scutatum</i>	X			Possible; searched for but not observed
N. two-lined salamander	<i>Eurycea bislineata</i>	X	X		Wetland Unit A2 and A3 streams
Eastern American Toad	<i>Bufo. a. americanus</i>	X	X		Wetlands A1, A2, and A3; also at SS
Gray treefrog	<i>Hyla versicolor</i>	X	X		GFS only; wetlands
Northern spring peeper	<i>Pseudacris c. crucifer</i>	X	X		WB
Bullfrog	<i>Rana catesbeiana</i>	X	X		Wetland Unit A1 (tadpole only)
Green frog	<i>Rana clamitans melanota</i>	X	X		Wetland Unit A1 and seasonal streams
Wood frog	<i>Rana sylvatica</i>	X	X		Breeding at Wetland Unit B
Pickerel frog	<i>Rana palustris</i>	X	X		Wetland Units A1 and A3
Wood turtle	<i>Glyptemys insculpta</i>	X		SPEC	CT NDDB record; not likely on site
Eastern box turtle	<i>Terrapene c. carolina</i>	X		SPEC	CT NDDB record; possibly at site
Northern brown snake	<i>Storeria d. dekayi</i>	X	X		Old barn; Switchyard Site (SS)
Northern redbelly snake	<i>Storeria o. occipitomaculata</i>	X			Possible
Common garter snake	<i>Thamnophis sirtalis</i>	X	X		GFS and SS
Northern ringneck snake	<i>Diadophis punctatus edwardsii</i>	X	X		Northern section of GFS
Northern black racer	<i>Culuber c. constrictor</i>	X			Possible but unlikely
Eastern milk snake	<i>Lampropeltis t. triangulum</i>	X	X		SS

⁵ Common and scientific names according to Klemens (1993)

⁶ Recorded in Killingly or in surrounding towns (e.g., Klemens 1993). Author has included additional species for which sufficient habitat exists, and which have been recorded elsewhere in Windham County.

⁷ Observed during the following field survey period: March to July 2016.

⁸ CT State-Listed: END = Endangered, THR = Threatened, SPEC = Special Concern

Attachment E - Table A-3

Mammals whose range encompasses or have been observed at the Killingly Energy Center Site

Town of Killingly, Windham County, Connecticut

Common Name⁹	Scientific Name	Site in Range?¹⁰	Observed at Site?¹¹	Listed?¹²	Location/Notes
Virginia opossum	<i>Didelphis virginiana</i>	X	X		SS
Masked shrew	<i>Sorex cinereus</i>	X			Probable
Water shrew	<i>Sorex palustris</i>	X			Possible
Smoky shrew	<i>Sorex fumeus</i>	X			Possible
Northern short-tailed shrew	<i>Blarina brevicauda</i>	X			Probable
Hairy-tailed mole	<i>Parascalops breweri</i>	X			Possible
Eastern mole	<i>Scalopus aquaticus</i>	X	X		GFS, near existing home
Star-nosed mole	<i>Condylura cristata</i>	X			Probable
Little brown myotis	<i>Myotis lucifugus</i>	X	X	END	Acoustic study by Tetra Tech
Big brown bat	<i>Eptesicus fuscus</i>	X	X		Acoustic study by Tetra Tech
Eastern red bat	<i>Lasiurus borealis</i>	X	X	SPEC	Acoustic study by Tetra Tech
Hoary bat	<i>Lasiurus cinereus</i>	X	X	SPEC	Acoustic Study by Tetra Tech
Silver-haired bat	<i>Lasionycteris noctivagans</i>	X	X	SPEC	Acoustic Study by Tetra Tech
Eastern cottontail	<i>Sylvilagus floridanus</i>	X	X		GFS, near existing house; SS field
Eastern chipmunk	<i>Tamias striatus</i>	X	X		throughout
Woodchuck	<i>Marmota monax</i>	X	X		
Eastern gray squirrel	<i>Sciurus corolinensis</i>	X	X		throughout
Red squirrel	<i>Tamiasciurus hudsonicus</i>	X	X		Mixed deciduous/evergreen forest
Northern flying squirrel	<i>Glaucomys sabrinus</i>	X			Possible
Southern flying squirrel	<i>Glaucomys volans</i>	X	X		Wetland Unit A3 (edge)
Meadow jumping mouse	<i>Zapus hudsonius</i>	X	X		SS
White-footed mouse	<i>Peromyscus leucopus</i>	X	X		GFS

⁹ Common and scientific names according to Whitaker and Hamilton (1998)

¹⁰ Range as depicted in Whitaker and Hamilton (1998) and DeGraaf and Yamasaki (2001)

¹¹ Observed during the following field survey dates:

¹² CT State-Listed: END = Endangered, THR = Threatened, SPEC = Special Concern

Attachment E - Table A-3 (cont.)

Common Name	Scientific Name	Site in Range?	Observed at Site?	Listed?	Location/Notes
Deer mouse	<i>Peromyscus maniculatus</i>	X			Probable
Southern red-backed vole	<i>Clethrionomys gapperi</i>	X			Probable
Meadow vole	<i>Microtus pennsylvanicus</i>	X			Probable
Woodland vole	<i>Microtus pinetorum</i>	X			Possible
Porcupine	<i>Erethizon dorsatum</i>	X	X		Probable; sign by Quinebaug River
Coyote	<i>Canis latrans</i>	X	X		GFS, including a skeleton
Red fox	<i>Vulpes vulpes</i>	X	X		SS and nearby
Gray fox	<i>Urocyon cinereoargenteus</i>	X	X		SS; (not conclusive based on tracks)
Black bear	<i>Ursus americanus</i>	X			Possible
Raccoon	<i>Procyon lotor</i>	X	X		Wetlands
Fisher	<i>Martes pennanti</i>	X	X		Heard during owl call-back survey
Short-tailed weasel	<i>Mustela erminea</i>	X			Possible
Long-tailed weasel	<i>Mustela frenata</i>	X			Probable
Striped skunk	<i>Memphitis memphitis</i>	X	X		Vicinity of existing house
Bobcat	<i>Lynx rufus</i>	X			Possible; sighting in Killingly nearby
White-tailed deer	<i>Odocoileus virginianus</i>	X	X		throughout

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